



ILC6

PENTAGRID CONVERTER

ILC6

GENERAL DATA

Electrical:

Filament, Coated:

Voltage. 1.4 dc volts

Current. 0.05 amp

Direct Interelectrode Capacitances:^o

Grid No.4 to Plate . . . 0.28 μ f

Mixer Input. 9.0 μ f

Mixer Output 5.5 μ f

Oscillator Input 2.4 μ f

Oscillator Output. . . . 4.8 μ f

^o With external shield connected to negative filament terminal.

Mechanical:

Mounting Position. Any

Maximum Overall Length 2-25/32"

Maximum Seated Length. 2-1/4"

Maximum Diameter 1-3/16"

Bulb T-9

Base Lock-in 8-Pin

Basing Designation for BOTTOM VIEW 7AK

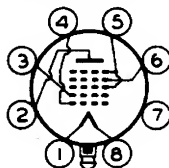
Pin 1-Filament (+)

Pin 2-Plate

Pin 3-Grid No.2

Pin 4-Grid No.1

Pin 5-Grid No.3,
Grid No.5



Pin 6-Grid No.4

Pin 7-No

Connection

Pin 8-Filament (-)

Plug - Base Shell

CONVERTER

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE. 110 max. volts

GRIDS-No.3 & No.5 (SCREEN) VOLTAGE . . . 45 max. volts

GRIDS-No.3 & No.5 SUPPLY VOLTAGE . . . 110 max. volts

GRID-No.2 (ANODE-GRID) VOLTAGE 50 max. volts

GRID-No.2 SUPPLY VOLTAGE 110 max. volts

TOTAL CATHODE CURRENT. 3.0 max. ma

Typical Operation:

Plate Voltage. 45 90 volts

Grids-No.3 & No.5 Voltage^o 35 35 volts

Grid-No.2 Voltage. 45 45 volts

Grid-No.4 (Control-Grid)

Supply Voltage . . . 0 0 volts

Min. Grid-No.4 Resistor. 1 1 megohm

Grid-No.1 (Oscillator-Grid) Resistor . 0.2 0.2 megohm

Plate Resistance 0.3 0.65 megohm

Conversion Transconductance. 250 275 μ hos

Conversion Transconductance (Approx.)[#] 5 5 μ hos

^o,[#]: See next page.

OCTOBER 15, 1947

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RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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Plate Current.	0.70	0.75	ma
Grids-No.3 & No.5 Current.	0.75	0.70	ma
Grid-No.2 Current.	1.4	1.4	ma
Grid-No.1 Current.	0.035	0.035	ma
Total Cathode Current.	2.9	2.9	ma

□ Obtained preferably by using a properly bypassed voltage-dropping resistor in series with the plate voltage supply. To avoid oscillation difficulties, the voltage of grids No.3 & No.5 must be at least 10 volts lower than the grid-No.2 voltage.

* For grid-No.4 bias of -3 volts.

NOTE: The characteristics of the oscillator section (not oscillating) are: transconductance = approx. 550 μ mhos; μ = 14; and grid-No.2 current = 2.7 ma. under the following conditions: plate volts = 90; grids No.3 & No.5 volts = 45; grid-No.4 volts = 0; grid-No.2 volts = 90; grid-No.1 volts = 0.

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